# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/043,792 | 01/10/2002 | Eric A. Beardsley | 2700 | 9108 |

7590          09/20/2006

ALBERT S. MICHALIK PLLC
LAW OFFICE
704 - 228TH AVENUE NE
SUITE 193
SAMMAMISH, WA  98074

| EXAMINER |
|---|
| FOWLKES, ANDRE R |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2192 | |

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| | 10/043,792 | BEARDSLEY ET AL. |
| *Office Action Summary* | Examiner | Art Unit | |
| | Andre R. Fowlkes | 2192 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

    A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ . Responsive to communication(s) filed on *06 June 2006*.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-13 and 15-47* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.      This action is in response to the amendment filed 6/6/06.

2.      Claims 1-13 and 15-47 are pending.  Claims 1, 16, 28, 30, 42 and 47  have been

amended.

### *Claim Rejections - 35 USC § 101*

3.      The rejection of claim 47 under 35 U.S.C. 101 is withdrawn in view of applicant's

amendment.

### *Claim Rejections - 35 USC § 112*

4.      The rejection of claims 1-13 and 15-47 under 35 U.S.C. 112, first paragraph, is

withdrawn, in view of applicant's amendment.

### *Claim Rejections - 35 USC § 103*

5.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.      Claims 1-13 and 15-47 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Keller et al., (Keller), U.S. Patent No. 6,662,312 on view of Laviolette

et al., (Laviolette), U.S. Patent No. 6,779,134.


        As per claim 1, Keller discloses **computer test system, comprising:**

        **- an interface configured to receive a request for performance of test jobs**

**on multiple machines** (col. 1:52-59, "the present invention provide(s) a software-

testing automation system for testing a plurality of deployed images that are spread

across multiple software platforms wherein each deployed image includes a test

component configured to accept a connection on a known testing port, and in which a

test engine runs a test on an image by requesting a connection on the known testing

port"),

        **- each of the test jobs including a defined platform for performance of the**

**test jobs** (col. 4:61-63, "A software-testing automation system of the present invention

allows a user to build tests that exercise multiple software platforms all in one test", this

statements discloses that the test component personalizes the "one test" to include a

defined platform when used on each of the different multiple different platforms),


        Keller doesn't explicitly disclose:

        **- an autolab component configured to select one of the multiple machines**

**as a selected machine based upon a platform on the selected machine and based**

**upon an availability of loading capability of the selected machine;**

> - **to act on the request by assigning at least one of the test jobs to the selected machine.**

However, Laviolette, in an analogous environment, discloses:

> - **an autolab component configured to select one of the multiple machines as a selected machine based upon a platform on the selected machine and based upon an availability of loading capability of the selected machine** (col. 3:4-7, "provides the hardware (i.e. platform) configuration data for use in determining which of the plurality of test stations is a suitable test station for testing target software to be tested", and 3:53-55, "selecting ... a test station that is free (i.e. has the capability) to execute or schedule a job to be executed"),

> - **to act on the request by assigning at least one of the test jobs to the selected machine** (col. 3:27-28, "a test job bundle queue is maintained ... to queue test jobs for each testing station").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Laviolette into the system of Keller to have:

> - **an autolab component configured to select one of the multiple machines as a selected machine based upon a platform on the selected machine and based upon an availability of loading capability of the selected machine;**

**- to act on the request by assigning at least one of the test jobs to the selected machine.**

The modification would have been obvious because one of ordinary skill in the art would have wanted to use the well known and well documented technique of resource utilization analysis to improve the accuracy and efficiency of software testing (Laviolette, col. 2:8-9).

As per claim 2, the rejection of claim 1 is incorporated, and further Keller discloses that **the autolab component comprises a management component that is configured to separate one of the test jobs into subtasks, and to order the subtasks into a reordered job** (col. 4:20-21, "the engine (i.e. autolab component) allows the tester to mix test steps (i.e. subtasks) that will be executed by different tools in one test case (i.e. reordered job)").

As per claim 3, the rejection of claim 2 is incorporated, and further Keller discloses that **the management component is configured to separate a plurality of the test jobs into subtasks, and to order the subtasks of the plurality of test jobs into a reordered job** (col. 4:20-21, "the engine (i.e. management component) allows the tester to mix test steps (i.e. test jobs) that will be executed by different tools in one test case (i.e. reordered job)").

As per claim 4, the rejection of claim 3 is incorporated, and further Keller

discloses that **the management component is configured to add a subtask**

**corresponding to a computing environment** (col. 7:10-15, "the user asks the test

automater to update a test case ... the user can update theses test steps, delete them

or add new ones").


As per claim 5, the rejection of claim 1 is incorporated, and further Keller

discloses that **the test component is configured to create a personalized test**

**package for the selected machine based upon the platform and applications**

**available at the client machine** (col. 4:61-63, "A software-testing automation system of

the present invention allows a user to build tests that exercise multiple software

platforms all in one test", this statements discloses that the test component personalizes

the "one test" to be used on multiple different platforms).


As per claim 6, the rejection of claim 5 is incorporated, and further Keller doesn't

explicitly disclose **a component for defining a time limit for execution of the test**

**job, and wherein the autolab component is configured to reconfigure the test job**

**to execute within the defined time limit.**

However, Laviolette, in an analogous environment, discloses **a component for**

**defining a time limit for execution of the test job, and wherein the autolab**

**component is configured to reconfigure the test job to execute within the defined**

**time limit** (col. 10:56-65, "the test job bundle includes data identifying ... a per job

maximum time limit such as indicated at 610, a job start time 618 and a per test software maximum time limit", and col. 3:18-19, "a test job bundle is generated for use by the software test system").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Laviolette into the system of Keller to have a **component for defining a time limit for execution of the test job, and wherein the autolab component is configured to reconfigure the test job to execute within the defined time limit**. The modification would have been obvious because one of ordinary skill in the art would have wanted to improve software testing efficiency (Laviolette, col. 2:8-9).


As per claim 7, the rejection of claim 1 is incorporated, and further Keller discloses **a database component associated with the test component for storing the test jobs** (col. 7:21, "test case repository (i.e. database component for storing the test jobs)").


As per claim 8, the rejection of claim 7 is incorporated, and further Keller discloses that **the database is configured to store a particular test job in a pending status prior to the particular test job being assigned to one of the multiple machines** (col. 7:19-21, "Once the Test Automater has this information it stores the description (and status) in the header of the test case and saves the changes to the test case in the test case repository").

As per claim 9, the rejection of claim 7 is incorporated, and further Keller discloses that **the database is configured to store a particular test job in an assigned status while the particular test job is assigned to one of the multiple machines** (col. 7:19-21, "Once the Test Automater has this information it stores the description (and status) in the header of the test case and saves the changes to the test case in the test case repository").

As per claim 10, the rejection of claim 7 is incorporated, and further Keller discloses that **the database is configured to store a particular test job in a completed status after the particular test job has been run by one of the multiple machines** (col. 7:30-35, "the test automator displays the list of available test cases (and their results/status)").

As per claim 11, the rejection of claim 1 is incorporated, and further Keller discloses **a message queue for the selected machine and that is associated with the autolab component, the message queue for storing information about test jobs that have been assigned to the selected machine** (col. 7:30-35, "the test automator displays the list of available test cases (that have been assigned to selected machines)).

As per claim 12, the rejection of claim 1 is incorporated, and further Keller

discloses **a high-level interface that permits direct access between the autolab**

**component and at least one of the multiple machines** (col. 2:17-19, "preferably at

least one of the known testing ports is a transmission control protocol/Internet protocol

(TCP/IP) well known port").

As per claim 13, the rejection of claim 12 is incorporated, and further Keller

discloses **a thin client that is configured for communicating between the high-level**

**interface and the multiple machines, the thin client being configured to translate**

**information from a client machine to information that may be utilized by the high-**

**level interface** (col. 2:17-19, "preferably at least one of the known testing ports is a

transmission control protocol/Internet protocol (TCP/IP) well known port").

As per claim 15, the rejection of claim 1 is incorporated, and further Keller

discloses that **the autolab component selects the selected machine based upon**

**the present imaging of the selected machine** (col. 1:52-59, "the present invention

provide(s) a software-testing automation system for testing a plurality of deployed

images that are spread across multiple software platforms wherein each deployed

image includes a test component configured to accept a connection on a known testing

port, and in which a test engine runs a test on an image by requesting a connection on

the known testing port", and 2:40-41, "the software platforms include multiple different

virtual machines and operating systems", and Figure 1, and associated text (e.g. 4:50-5:39) shows that tests selected for their corresponding machine images).

As per claims 16-27, this is another system version of the claimed system discussed above, in claims 1-6 and 8-13, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Keller/Laviolette system (Keller 1:52-4:63 and Laviolette 3:4-55).

As per claims 28-29, this is another system version of the claimed system discussed above, in claims 1 and 13, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Keller/Laviolette system (Keller 1:52-4:63 and Laviolette 3:4-55).

As per claims 30-41, this is another system version of the claimed system discussed above, in claims 1 and 10-13, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Keller/Laviolette system (Keller 1:52-4:63 and Laviolette 3:4-55).

As per claims 42-47, this is a method version of the claimed system discussed above, in claims 1-5, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Keller/Laviolette system (Keller 1:52-4:63 and Laviolette 3:4-55).

### *Response to Arguments*

7.      Applicants arguments have been considered but they are not persuasive.


*In the remarks, the applicant has argued substantially that:*

1)      Laviolette does not disclose an autolab component configured to select one of

the multiple machines based upon a platform on the selected machine and assigning a

job to the selected machine, at p. 18:9-12.


*Examiner's response:*

1)      The examiner disagrees with applicant's characterization of the applied art.  In

the following citation, Laviolette describes selecting a machine based on the

configuration/platform of the machine.  At col. 3:4-7, Laviolette discloses "provides the

hardware (i.e. platform) configuration data for use in determining which of the plurality of

test stations is a suitable test station for testing target software to be tested", and 3:53-

55, "selecting ... a test station that is free (i.e. has the capability) to execute or schedule

a job to be executed," as addressed in the above art rejection.


*In the remarks, the applicant has argued substantially that:*

2)      The cited art does not disclose choosing a machine based on the loading

capacity, at p. 18:22 and 19:21.

*Examiner's response:*

2)      In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., loading **capacity**) are not recited in the rejected claim(s) or in the specification.

Although the claims are interpreted in light of the specification, limitations from the

specification are not read into the claims.  See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993).


*In the remarks, the applicant has argued substantially that:*

3)      The cited art does not disclose choosing a machine based on the loading

capability, at p. 19:19-22, 21:6-17, 22:10-14, 23:15-18, 25:14, 27:15-20, 28:23-29:1


*Examiner's response:*

3)      The examiner disagrees with applicant's characterization of the applied art.

Laviolette does disclose choosing a machine based on the loading capability, at col.

3:4-7, "provides the hardware (i.e. platform) configuration data for use in determining

which of the plurality of test stations is a suitable test station for testing target software

to be tested", and 3:53-55, "selecting ... a test station that is free (i.e. has the capability)

to execute or schedule a job to be executed."


*In the remarks, the applicant has argued substantially that:*

4)      The Keller and Laviolette references teaching away from each other, at p. 20:1-

10, 23:19-24:3, 25:15-16 and 26:9-19.

*Examiner's response:*

4)     The applicant is arguing that Keller and Laviolette teach away from each other since certain embodiments of both Keller and Laviolette disclose assigning tests to test stations without regard for loading capability. However, certain embodiments of Laviolette disclose assigning tests based on loading capacity. And further, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed.." *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

*In the remarks, the applicant has argued substantially that:*

5)     The combination of Keller and Laviolette is based on impermissible hindsight, at p. 20:1-2, 23:19-24:3, 25:15-16 and 26:9-19,

*Examiner's response:*

5)     In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

*In the remarks, the applicant has argued substantially that:*

6)      The prior art does not disclose personalized test packages for the selected machine based upon the platform and applications available at the client machine, at p. 21:5-10.

*Examiner's response:*

6)      The examiner disagrees with applicant's interpretation of the applied art. The prior art does disclose personalized test packages for the selected machine based upon the platform and applications available at the client machine, at Keller col. 4:61-63, "A software-testing automation system of the present invention allows a user to build tests that exercise multiple software platforms all in one test." The test contains components to test each type of system. The test system applies specific test components to each type of platform to personalize the test package.

*In the remarks, the applicant has argued substantially that:*

7)      The cited art does not disclose selecting the selected machine based upon the present imaging of the selected machine, at p. 21:16-18.

*Examiner's response:*

7)     The cited art does disclose selecting the selected machine based upon the

present imaging of the selected machine, at Keller, col. 1:52-59, "the present invention

provide(s) a software-testing automation system for testing a plurality of deployed

images that are spread across multiple software platforms wherein each deployed

image includes a test component configured to accept a connection on a known testing

port, and in which a test engine runs a test on an image by requesting a connection on

the known testing port", and 2:40-41, "the software platforms include multiple different

virtual machines and operating systems", and Figure 1, and associated text (e.g. 4:50-

5:39) shows that tests selected for their corresponding machine images).


### Conclusion

8.     Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (571) 272-3697. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TUAN DAM
SUPERVISORY PATENT EXAMINER

ARF